

REMARKS

The specification, drawings and claims have been amended to improve the style of this application. Applicant notes that new claims 41 - 56 and 77 - 80 are drawn to the species elected in the parent application.

Applicant thanks the Examiner for the detailed description of the rejections in the parent application, for indicating that certain rejections have been obviated, and for providing suggestions.

In the Amendments to the specification, clean replacement paragraphs have been provided, as well as marked-up paragraphs. The basis for the marked-up paragraphs has been the version of the paragraphs after the April 26, 2001 Amendment. In other words, the basis for the marked-up paragraphs includes all of the amendments made to those paragraphs up to and including the April 16, 2001 Amendment.

The specification has been amended to indicate that the housing is represented in the preferred embodiment of the drawings by reference 3, as suggested by the Examiner. Applicant does not wish to limit the housing of the claims to just the shape and size of element 3. Instead the housing of the claims is to include all structure which a person of ordinary skill in the art would consider a housing type structure and has the relationships of the housing as set forth in the claims. An example of one type of variation of a housing would be elements 103 and 106 in Figures 3 and 4. Element 103 is a main portion of a housing and element 106

is a cover. This is described in the specification on page 9 lines 29 - 32. Applicant notes that the embodiment of Figure 1 has a cover 25 which some people could consider to be part of the housing. Therefore it is Applicant's position that the term housing, is broad enough to encompass element 3, with or without element 25.

The stop means in claim 1 has been rejected as being vague and indefinite as to what disclosed structure it refers. New claim 41 sets forth a stop. Applicant notes that the specification on page 6 line 28 was amended on December 26, 2000 to indicate that a preferred embodiment of the stop is shown by journal 9. The specification has been further amended at this time to indicate that component 29 is also part of the stop structure that holds the spool to the housing. In the embodiment of Figure 1, the stop or stop means can be considered to include all the structures of elements 13, especially 13a, spring 17, actuating slider 19, knob 21, journal 9 and hub 7 since together they perform the stop or stop means function.

Journal 9 is attached to hub 7, which is attached to housing 3. Journal 9 holds hub 21 between journal 9 and housing 3. Knob 21 holds the actuating slider 19 between elements 21 and 3. Actuating slider 19 holds spring 17 between elements 19 and 3. Spring 17 biases stop component 13 to housing 3. Stop component 13 holds spool 5 against housing 3. A person of ordinary skill in the art would understand from the specification and drawing that this structure performs the function of the stop means, namely holding the spool in the housing while the line is wound onto the spool. Applicant does not wish the stop of the claims to be limited to the specific structure of Figure 1, but to include all structure a person of ordinary skill would feel performs the functions associated with the stop structure in the claims.

Claim 3 has been rejected due to the term “retention members” being vague and indefinite as to what disclose structure it refers. Applicant notes the retention members of new claim 48 can be broadly read on including the elements 7, 9, 21, 19 and 13. All of these elements act against the force of the spring and prevent the spring from escaping when the housing is open. The retention members are set forth as being part of the stop, and these portions of the stop also have the additional function of acting against the force of the spring action member and preventing the spring action member from escaping. Applicant notes that the retention member of claim 48 is not to be limited to the specific size and structure of the elements in Figure 1, but are instead to be broadly read on all structure which performs the function set forth in the claim.

Claim 6 has been objected to with regard to the first and second group of stops. Applicant thanks the Examiner for further describing this rejection. Applicant has added new claim 49 to set forth that the first and second group of stops are rotationally fixed to the housing. In discussing the rejection, the Examiner indicates that the stops can be considered rotationally fixed to the housing. This should now overcome any confusion caused by the phrase “on the housing”.

Applicant notes that the first series of teeth integral with the spool can be considered elements 5a in Figure 1. The second series of teeth integral with the spool can be considered elements 5b. In Figure 1, the top portion of element 19a is considered the first stop or part of the first group of stops which engages with the first series of teeth represented by element 5a. The bottom of element 19a in Figure 1 engages with the second series of teeth 5b. Therefore

the bottom of element 19a is considered to be the second stop or group of stops. Element 19a therefore has a top portion which in the preferred embodiment of Figure 1, represents the first group of stops, and the bottom portion of element 19a represents the second group of stops in Figure 1.

Claim 40 had been withdrawn from further consideration as being drawn to a non-elected species. In particular the Office Action states that the structure defined by the limitations directed to the winding mechanism found in line 7 - 10 is not present in the elected species of Figures 1, 2, 2a and 2b. Applicant notes that the winding mechanism is set forth in original lines 7 - 10 as including teeth on the spool and teeth on the housing where the teeth have a shape to slide passed each other in one direction and to block rotation in another direction. Applicant notes that the limitation of the teeth on the spool and the teeth on the housing are intended to indicate that these teeth are on opposite sides of the rotatable connection between the spool and the housing. A rotatable connection between a housing and a spool can be made in many different ways and the concept of the winding mechanism of claim 40 can be applied to the many different types of rotatable connections. What is important, is that one set of teeth is on the housing side of the connection, and the other set of teeth is on the spool side of the connection. The teeth on the spool side rotate with the spool, especially when the feed mechanism is not being used. Applicant has added new claim 77 to set forth that the winding mechanism includes teeth rotatable with the spool. New claim 80 has been added to set forth that the teeth are on a spool side of the cutting head, and the other teeth are on a housing side of the cutting head.

With this Amendment Applicant is enclosing a Sketch A showing the winding teeth on the housing in Figures 1 and 2, and the winding teeth rotatable with the spool in Figures 1 and 2. Applicant notes that the winding teeth rotatable with the spool, or the winding teeth on the spool side of the cutting head are indicated by reference 29. The limitations to the winding mechanism of claim 77, are therefore present in the species of Figures 1, 2, 2a and 2b. Applicant respectfully requests that claim 77 be considered. If the Examiner has any comments or suggestions for alternate wording of claim 77, the Examiner is invited to contact Applicant's representative by telephone to discuss possible changes.

The independent claims in the last Office Action have been rejected as being anticipated by Fabrizio.

New claim 77 has been added to set forth the limitations of a winding mechanism with winding teeth on the housing, and winding teeth rotatable with the spool. Fabrizio does not teach nor suggest such teeth in a winding mechanism, and therefore claim 77 is not anticipated by Fabrizio. Furthermore Applicant finds no indication in Fabrizio that such teeth would be beneficial, and therefore claim 77 cannot be obvious over Fabrizio.

Applicant thanks the Examiner for further clarifying the rejection in view of Fabrizio. The Examiner indicates how loosening of the retaining screw 10 in Fabrizio allows feature 3 to be lowered and then the winding of the line onto the head can be performed. Applicant now better understands the Examiner's rejection. The Office Action states that while this type of winding operation is not disclosed, it is clearly possible and is thus considered an intended use of the prior art device.

Applicant respectfully traverses any indication that Fabrizio would lead a person of ordinary skill in the art to such a winding operation. A person of ordinary skill in the art would have no indication from Fabrizio that such a winding operation is possible, and instead the discovery of such a winding operation would require inventive effort. It is therefore Applicant's position that Fabrizio does not intend such a winding operation to be used, whether or not such a winding operation is possible.

New claim 41 has been added to set forth the features of the anchor. In the preferred embodiment of Figures 1 and 2, the anchor is represented by reference character 5D. The anchor is further set forth as being arranged to be accessible from outside the housing to enable the line to be connected to the anchor without taking the spool out of the housing. It is quite clear from Figures 2a and 2B, that the anchor 5D is accessible from outside the housing, without having to remove the spool from the housing. The original specification describes this feature on page 8, lines 6-14. Applicant has reviewed the prior art of Fabrizio, and finds no teaching and no suggestion of any structure similar to the anchor of claim 41, especially an anchor being arranged to be accessible from outside a housing without taking a spool out of the housing. Applicant notes that in the prior art of Fabrizio, it is necessary to remove the spool from the housing in order to connect the line to a bobbin. New Claim 41 therefore sets forth an anchor which has a relationship to a spool and a housing, where that relationship is not taught nor suggested in Fabrizio. Claim 41 therefore cannot be anticipated by Fabrizio.

Claims 43-46 set forth further features of the anchor, and its relationship to the stop and the spool. Fabrizio does not teach nor suggest these further features, and therefore these claims

further define over the prior art.

Claim 47 sets forth that the spool defines access slots providing access to the anchors. Applicant find no teaching or suggestion in Fabrizio of a spool defining access slots providing access to the anchors, and therefore claim 47 further defines over the prior art.

Claim 48 depends from Claim 47 and sets forth that an annular cover is connected to the housing and covers a side of the spool diametrically opposite the housing, and that the annular cover covers said access slots. The embodiment of Figures 1 and 2, the annular cover is shown by reference character 25. By removal of annular cover 25, the access slots and the anchors are made accessible from outside of the housing, without having to remove a spool from the housing. Applicant finds no teaching and no suggestion in Fabrizio of an annular cover, especially an annular cover that can be removed to provide access to access slots and anchors. Therefore claim 48 further defines over the prior art.

The present invention is an improvement over the prior art, in that the structure of the present invention makes it much easier to wind a line onto or into a cutting head. This is especially true with regard to the teeth of the winding mechanism allowing rotation in one direction and blocking rotation in another direction, and the anchors being accessible from outside the housing while the spool is still in the housing. This allows operator's of the cutting head to more easily wind line on to the spool, and thus reduce the time required to operate or maintain the device. This results in a more efficient use of the operators time. Applicant respectfully requests patent protection for this improvement.

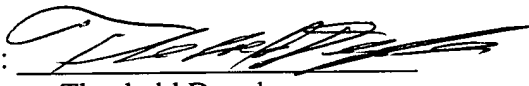
If the Examiner has any comments or suggestions which would further favorable

prosecution of this application, the Examiner is invited to contact Applicant's representative by telephone to discuss possible changes.

At this time Applicant respectfully requests reconsideration of this application, and based on the above amendments and remarks, respectfully solicits allowance of this application.

Respectfully submitted
For Applicant,

By:



Theobald Dengler
Registration No. 34,575
McGLEW AND TUTTLE, P.C.

TD:da
63286RCE.1


Enclosed: Marked-up Paragraphs from the Specification
Sketch A
Letter Re Drawing Corrections
(1) Sheet of Drawing

DATED: June 19, 2002
SCARBOROUGH STATION
SCARBOROUGH, NEW YORK 10510-0827
(914) 941-5600

SHOULD ANY OTHER FEE BE REQUIRED, THE PATENT AND TRADEMARK OFFICE IS HEREBY REQUESTED TO CHARGE SUCH FEE TO OUR DEPOSIT ACCOUNT 13-0410.

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS EXPRESS MAIL IN AN ENVELOPE ADDRESSED TO: COMMISSIONER OF PATENTS AND TRADEMARKS, WASHINGTON, D.C. 20231, NO.: EV071197062US

McGLEW AND TUTTLE, P.C.
SCARBOROUGH STATION, SCARBOROUGH, NY 10510-0827

BY:  DATE: June 19, 2002

MARKED-UP PARAGRAPHS FROM THE SPECIFICATION

Pages 6 and 7, paragraphs starting on page 6 at line 18 and ending on page 7 at line 4:

A first embodiment of the head according to the invention is illustrated in Figs. 1 and 2. The head has the general reference 1 and comprises a housing ~~a housing portion 3~~ containing a spool 5 on which is wound a cutting line F, depicted as a series of turns in the longitudinal section of Fig. 1.

The ~~portion 3 of the housing 3~~ has a cylindrical circumferential wall 3A with bushings 4 through which the cutting line F passes out. Extending axially through the inside of the housing ~~portion 3~~ is a hub 7 with a threaded portion 7A and a hexagonal-section portion 7B coupled in torsion inside the through seat formed in the ~~portion 3 of the housing 3~~. The hub 7 is locked to the ~~portion 3 of the housing 3~~ by a journal or stop 9 that screws onto a second threaded portion 7C of the hub 7 and that has an elastic ring 11.

Fitted onto the hub 7, and journal 9 is a stop component 13 that forms a support for the spool 5, being provided with a collar 13A on which the spool 5 sits. The support 13 is held against the ~~portion 3 of the housing 3~~ by a spring-action member consisting of a helical spring 17 housed in a cylindrical seat formed in the support 13. Inside this cylindrical seat is a moveable actuating slider 19 with projections 19A that project through longitudinal slots 13X in the cylindrical wall of the support 13.

Page 7, paragraph starting at line 26 and ending at line 32:

-- Around the collar 13A supporting the spool 5 is a basically cylindrical closing wall 13B on which is mounted an annular cover 25. This cover has an edge 25A that surrounds the free edge of the circumferential wall 3A of the housing ~~portion 3~~. The cover 25 may be held in position by its interference with the closing wall 13B and/or by interference between the edge 25A and the circumferential wall 3A, or by means of spring-action projections (not shown in Figures 1 and 2).--.

Pages 8 and 9, paragraphs starting on page 8 at line 15 and ending on page 9 at line 4:

-- Having secured the ends of the line in the holes 5D, the operator, by twisting the closing wall 13B of the spool support 13, can rotate, in the winding direction, the assembly made up of the button 21, the actuating slider 19, the support 13 and the spool 5 around the hub 7 axis. Rotation in the winding direction is permitted by the shaping of sawtooth section end teeth 29 formed on that portion of the support 13 which is pushed against the housing ~~portion 3~~, the latter having complementary teeth, as can be seen in particular in the cutaway view, Fig. 2.

The reverse rotation between the support 13 and the housing ~~portion~~ 3 (the direction in which the line is unwound) is not permitted, so that spontaneous rotation in the line unwinding direction is prevented, not only during rewinding of the supply of line but also when the head is in operation. The teeth 29 and the complementary teeth on the housing ~~portion~~ 3 thus form an anti-rotation means for rotating in a winding direction, but not in an unwinding direction.

The system of mutual locking between the housing ~~portion~~ 3, the support 13 and the knob 21 may differ from this. For example, the central hub 7 may be omitted and the connection may be provided by a system of spring-action fingers. Similarly, the connection between the head and the brushcutter may be provided by a snap-engaging quick-coupling system or the like, of a type known per se, rather than by means of a threaded journal. Similarly, the knob 21 and the actuating slider 19 may be constructed in one piece. The journal 9 may be screwed in by a socket wrench passing through a hole in the knob 21, or the latter may be coupled in torsion to the journal 9 to enable it to rotate.--.

Page 9, paragraph starting at line 18 and ending at line 20:

Also shown in Figs. 2A and 2B are spring-action tabs 6 formed integrally with the housing ~~portion~~ 3. These are for fastening the annular cover 25 (omitted in Figs. 2A and 213) in place.